

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1336068

Luminaire Tested: P3A02R459727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R459727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

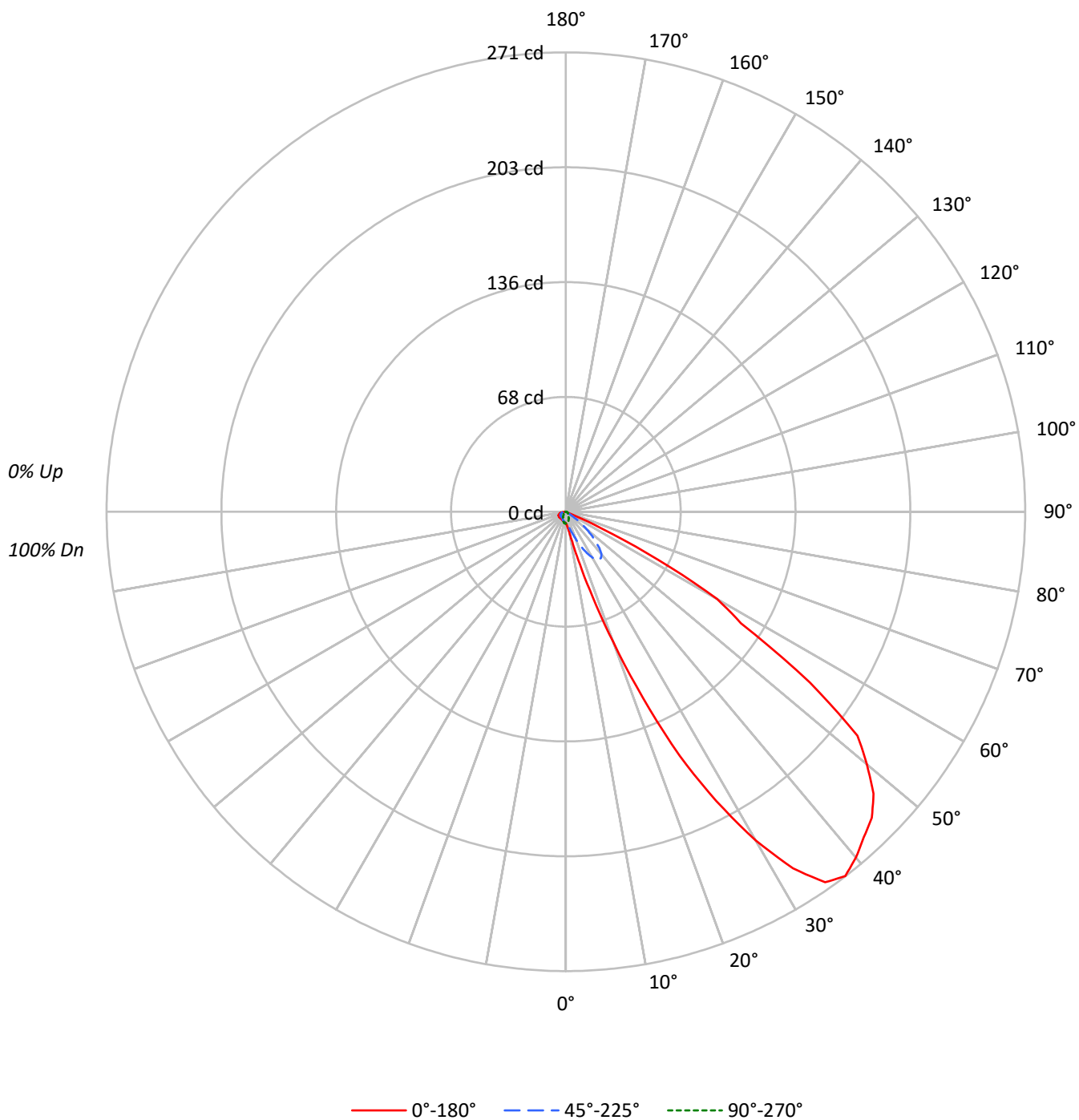
Lumens per Lamp: N/A
Luminaire Lumens: 121.0 lumens
Efficiency: N/A
Efficacy: 33.6 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	63	49	40	34	61	48	40	33	47	39	33		45	38	33		44	37	33	31
8	58	44	35	29	56	43	35	29	42	34	29		40	33	28		39	33	28	26
9	53	39	31	25	52	39	30	25	38	30	25		36	29	25		35	29	24	22
10	49	36	27	22	48	35	27	22	34	27	21		33	26	21		32	26	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1535	1535	1535	1535	1535
5°	1827	1695	1519	1409	1409
10°	2917	1982	1425	1336	1336
15°	7265	2656	1294	1249	1294
20°	19135	3967	1120	1190	1260
25°	38422	5879	968	1113	1234
30°	56642	7875	785	1089	1266
35°	71420	9235	669	1071	1312
40°	76200	9332	601	1116	1403
45°	79171	7784	558	1209	1520
50°	79076	5424	546	1296	1706
55°	67209	2409	573	1453	1873
60°	45172	482	570	1623	2149
65°	11986	208	571	1764	2439
70°	321	256	577	1923	2757
75°	254	254	593	2033	3135
80°	253	379	631	2147	3536
85°	252	503	1006	2264	3522

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 81209 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	3.4	2.8
20°-30°	14.1	11.6
30°-40°	29.7	24.5
40°-50°	36.6	30.2
50°-60°	27.4	22.7
60°-70°	7.1	5.8
70°-80°	1.5	1.2
80°-90°	0.6	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	18.2	15.0
0°-40°	47.9	39.5
0°-60°	111.9	92.5
0°-90°	121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	121.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	8	8	7	6	6	1
15°	32	12	6	6	6	12
25°	159	24	4	5	5	74
35°	267	34	2	4	5	163
45°	255	25	2	4	5	195
55°	176	6	2	4	5	152
65°	23	0	1	3	5	33
75°	0	0	1	2	4	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
2.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.2	7.0	6.8
5°	8.3	8.2	8.2	8.2	8.1	8.0	8.0	7.7	7.3	6.9	6.6
7.5°	9.8	9.8	9.7	9.5	9.4	9.2	9.0	8.2	7.3	6.7	6.3
10°	13.1	12.9	12.6	12.4	11.9	11.2	10.7	8.9	7.2	6.4	6.1
12.5°	19.6	20.0	19.0	18.0	16.6	15.3	13.7	10.1	7.2	6.1	5.8
15°	32.0	32.7	30.8	28.8	25.4	22.2	19.2	11.7	7.0	5.7	5.4
17.5°	52.3	53.2	50.0	45.3	40.0	33.6	28.1	13.9	6.8	5.3	5.1
20°	82.0	81.9	75.7	69.8	59.6	50.2	39.9	17.0	6.5	4.8	4.8
22.5°	118.5	118.9	111.3	100.7	86.2	71.1	54.7	20.6	6.1	4.4	4.5
25°	158.8	155.4	146.4	133.5	115.0	94.1	72.5	24.3	5.7	4.0	4.2
27.5°	192.4	189.1	178.8	163.5	143.6	118.8	90.6	28.0	5.2	3.6	3.9
30°	223.7	219.5	207.1	189.8	166.1	139.3	107.6	31.1	4.6	3.1	3.6
32.5°	249.4	245.6	231.6	211.5	185.7	156.9	122.0	33.5	4.0	2.8	3.4
35°	266.8	262.9	249.9	227.9	199.8	169.7	133.7	34.5	3.5	2.5	3.3
37.5°	270.8	268.7	259.4	238.8	209.5	177.9	141.2	34.2	2.9	2.3	3.1
40°	266.2	266.7	262.3	245.1	214.7	181.4	144.3	32.6	2.4	2.1	3.0
42.5°	260.3	261.6	261.3	247.7	216.9	181.6	143.0	29.4	1.9	1.9	2.9
45°	255.3	256.6	258.4	246.6	215.4	179.0	138.9	25.1	1.4	1.8	2.9
47.5°	246.2	247.6	250.2	237.9	207.8	172.3	131.5	20.4	1.0	1.7	2.8
50°	231.8	232.5	231.8	217.9	193.2	161.5	119.5	15.9	0.7	1.6	2.8
52.5°	216.9	215.5	209.7	192.1	170.0	144.4	104.4	11.3	0.5	1.5	2.7
55°	175.8	173.6	169.3	158.5	145.9	123.4	84.4	6.3	0.5	1.5	2.6
57.5°	122.5	123.7	125.2	123.0	117.2	97.2	64.1	2.8	0.5	1.4	2.6
60°	103.0	102.0	102.1	100.7	91.1	70.9	44.1	1.1	0.5	1.3	2.5
62.5°	61.5	62.2	63.5	63.8	54.3	39.6	23.1	0.5	0.5	1.2	2.4
65°	23.1	24.2	21.2	18.4	14.6	10.7	5.4	0.4	0.6	1.1	2.2
67.5°	0.7	0.8	1.0	0.9	0.9	0.8	0.6	0.4	0.6	1.0	2.1
70°	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.9	1.9
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8	1.7
75°	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	1.4
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	1.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	1.0
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.8
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	7.0	7.0	7.0
2.5°	6.6	6.6	6.6
5°	6.4	6.4	6.4
7.5°	6.2	6.2	6.2
10°	6.0	6.0	6.0
12.5°	5.8	5.8	5.9
15°	5.5	5.7	5.7
17.5°	5.3	5.5	5.6
20°	5.1	5.3	5.4
22.5°	4.8	5.1	5.3
25°	4.6	5.0	5.1
27.5°	4.4	4.9	5.1
30°	4.3	4.8	5.0
32.5°	4.1	4.7	4.9
35°	4.0	4.7	4.9
37.5°	4.0	4.6	4.9
40°	3.9	4.6	4.9
42.5°	3.9	4.6	4.9
45°	3.9	4.6	4.9
47.5°	3.8	4.6	5.0
50°	3.8	4.7	5.0
52.5°	3.8	4.7	5.0
55°	3.8	4.7	4.9
57.5°	3.7	4.6	4.9
60°	3.7	4.6	4.9
62.5°	3.5	4.5	4.8
65°	3.4	4.4	4.7
67.5°	3.2	4.3	4.5
70°	3.0	4.0	4.3
72.5°	2.7	3.8	4.1
75°	2.4	3.5	3.7
77.5°	2.1	3.1	3.3
80°	1.7	2.6	2.8
82.5°	1.3	2.0	2.1
85°	0.9	1.3	1.4
87.5°	0.4	0.6	0.7
90°	0.0	0.0	0.0

(END OF REPORT)